Vol. 89. Part 13. Pp. 579-589, 7 figs. 15th November, 1939

IMP. INS NT.
LIBR.
15 NOV 1939
En-344
ERIAL
PARATE

THE

TRANSACTIONS

OF THE

ROYAL

F. & A

ENTOMOLOGICAL SOCIETY

OF

LONDON

World List abbreviation: *Trans. R. ent. Soc. Lond.*

CONTENTS

PAGE

MAMET, Raymond. Some new genera and species of COCCIDAE (Hemipt. Homopt.) from Mauritius . . . . 579–589, 7 figs.

LONDON:
PUBLISHED BY THE SOCIETY AND
SOLD AT ITS ROOMS, 41, QUEEN'S GATE, S.W.7

Price 3s. 6d.

THE ROYAL ENTOMOLOGICAL SOCIETY OF LONDON

Founded, 1833. Incorporated by Royal Charter, 1885.

PATRON—HIS MAJESTY THE KING.

OFFICERS and COUNCIL for the SESSION 1939-1940.

J. C. F. FRYER, O.B.E., M.A., *President.*

E. A. COCKAYNE, M.A., M.D., F.R.C.P.
FRANCIS HEMMING, C.M.G., C.B.E.
V. B. WIGGLESWORTH, M.A., B.Ch., M.D.
} *Vice-Presidents.*

N. D. RILEY, *Treasurer.*

O. W. RICHARDS, M.A., D.Sc., *Secretary.*

F. J. GRIFFIN, A.L.A., *Registrar.*

Other Members of Council.

H. M. EDELSTEN.
C. N. HAWKINS.
B. M. HOBBY, M.A., D.PHIL.
COL. F. A. LABOUCHERE.
HUGH MAIN, B.Sc.
SIR GUY A. K. MARSHALL, C.M.G., D.Sc., F.R.S.
A. M. MASSEE, D.Sc.
THE HON. MIRIAM ROTHSCHILD.
W. R. THOMPSON, PH.D., D.Sc., F.R.S.
B. P. UVAROV, D.Sc.
A. WELTI.

Finance and House Committee.

FRANCIS HEMMING, C.M.G., C.B.E. (Chairman).

BRIG.-GEN. B. H. COOKE, C.M.G., C.B.E., D.S.O.
H. WILLOUGHBY ELLIS, M.I.E.E.
G. FOX-WILSON.
R. W. LLOYD.
A. WELTI.

Publication Committee.

W. R. THOMPSON, PH.D., D.Sc., F.R.S. (Chairman).

M. BURR, D.Sc., F.G.S., A.R.S.M.
E. A. COCKAYNE, M.A., M.D., F.R.C.P.
B. M. HOBBY, M.A., D.PHIL.
A. M. MASSEE, D.Sc.
HUGH SCOTT, M.A., Sc.D.

Library Committee.

B. P. UVAROV, D.Sc. (Chairman).

R. B. BENSON, M.A.
K. G. BLAIR, D.Sc.
H. M. EDELSTEN.
R. W. LLOYD.
W. H. T. TAMS.

Committee for the Protection of British Insects.

W. G. SHELDON (Chairman).

CAPT. E. BAGWELL-PUREFOY.
C. L. COLLENETTE.
W. J. DOW.
J. C. F. FRYER, O.B.E., M.A.
COL. F. A. LABOUCHERE.
N. D. RILEY.
H. M. EDELSTEN (Secretary).

The Executive Officers of the Society are *ex-officio* members of all Committees.

DELEGATES OF THE SOCIETY TO:

1. **British National Committee for Biology** (Royal Society).
   Sir Thomas Hudson Beare, LL.D., F.R.S.E., appointed 1933.
   Dr. Karl Jordan, F.R.S., appointed 1936.
2. **Conference of Delegates of Corresponding Societies of the British Association for the Advancement of Science.**
   Mr. H. B. Cott, appointed 1939.
3. **International Congress of Entomology** (Berlin 1938).
   J. C. F. Fryer, O.B.E., M.A. *Francis Hemming, C.M.G., C.B.E.*
   A. D. Imms, M.A., Sc.D., F.R.S.
4. **Local Committee of Management of Wicken Fen.**
   Mr. H. M. Edelsten. *Mr. E. C. Bedwell.*
   [Delegates nominated by Committee for the Protection of British Insects.]
5. **National Trust for Places of Historic Interest or Natural Beauty.**
   Mr. W. G. Sheldon, appointed 1922.
6. **New Forest Association.**
   Mr. W. Fassnidge, appointed 1934.
7. **Royal Meteorological Society. Phenological Committee.**
   Dr. C. B. Williams, appointed 1937.

SOME NEW GENERA AND SPECIES OF COCCIDAE (HEMIPT. HOMOPT.) FROM MAURITIUS

By Raymond Mamet.

Communicated by Sir Guy Marshall, C.M.G., F.R.S.

(Read 1st March, 1939.)

The species described below have been kindly examined by Mr. E. E. Green and Dr. W. J. Hall, whom I thank for their valuable assistance on many occasions.

The types will be deposited in the collection of the British Museum (Natural History) and the paratypes are in my collection and in that of the Paris Museum.

Tylococcus mauritiensis sp. n.

Adult female broadly ovoid, pale yellowish-white in colour, somewhat convex. Segmentation distinct. Dermis covered with a white waxy secretion. Margin with a fringe of whitish tassels which tend to be more developed near abdominal region. Mouth-parts and legs sclerotised, darker than rest of body. No ovisac present. After treatment with potash, the margin is seen to be more or less produced into small but quite definite *tubercles* of which there are eighteen on each side and on which are situated the *cerarii*; each cerarius with 2 (occasionally 1 or 3) acutely pointed conical spines. Before mounting, the interspaces between the tubercles are broad but become completely obliterated after compression. Antennae (fig. 1, *a*) relatively short, with 8 segments; all segments with several longish setae; terminal segment elongate and longest, usually showing a well-defined pseudo-articulation. Formula :—8, (1, 2), (3, 6), 7, 5, 4. *Eyes* submarginal. *Mentum* sharply pointed with a tuft of hairs at its tip. Rostral loop long. *Limbs* (fig. 1, *b*) relatively well developed and robust; each segment with several longish slender setae; tarsus of hind leg shorter than tibia, being two-thirds its length; tibia about four-fifths the length of femur, with very few minute translucent pores at its distal extremity. Femur swollen. Trochanter with a longish stout hair. Coxa relatively large, with a few translucent pores on its outer surface. Claw slender, acute. Tarsal digitules filiform, longer than claw and minutely knobbed. Ungual digitules longer than claw but shorter and thicker than tarsals, with more conspicuously knobbed extremities. *Paranal lobes* (fig. 1, *c*) broadly rounded, not sclerotised and not very prominent. Caudal setae long and stout, arising from below apex of paranal lobes and on their ventral surface. There is also a fairly long seta and other shorter ones adjacent to caudal setae. Four long and stout spines are also found in space between paranal lobes. A conspicuous sclerotised bar is associated with each caudal seta. *Anal ring* beaded, with six setae which are approximately two-fifths length of caudal ones. No marked concentration of micropores associated with cerarii. *Dorsal ostioles* conspicuous; lips of posterior pair more turgid, with fairly numerous micropores. *Medio-ventral ostiole* large, irregular in outline. *Dermis* with scattered small trilocular pores which are more numerous on dorsum. The large circular *discoid pores* are numerous and more or less arranged into definite loose series on venter of last abdominal segments. Body *setae* numerous on dorsum, scarce on ventral dermis; these setae are more or less crowded on the frons.

Early adult female elongate, becoming more ovate later. Antennae with 7 segments. Formula 7, 3, 1, 2, 6, 5, 4.

On fruits of *Eugenia mespiloides*, an endemic tree in MAURITIUS : Corps de Garde Mountain (2350 ft.) 30.i.1938 (*Ray. Mamet*).

Parasitised to some extent by a small dipteron (probably *Schizobremia jujubae* Barnes (Dipt. CECIDOMYIIDAE)).

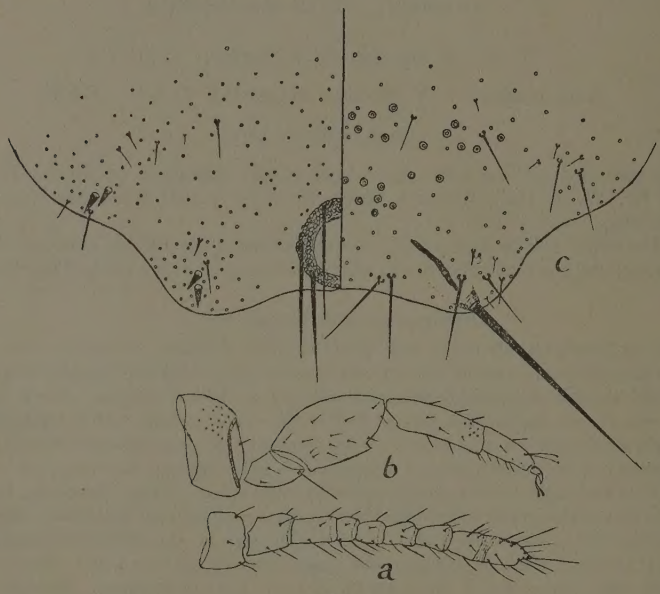


FIG. 1.—*Tylococcus mauritiensis* sp. n. *a*, antenna × 135; *b*, hind leg × 95; *c*, posterior extremity of adult female × 175.

Aspidiotus subterraneus sp. n.

Female puparium brownish-buff in colour, slightly conical, irregularly circular. *Exuviae* subcentral. Larval exuvium yellow and shiny. Nymphal exuvium darker, obscured by layer of pale buff secretion. Ventral scale represented as a whitish scar on surface of rhizomes of food-plant. Diameter of puparium 1·9–2·3 mm.

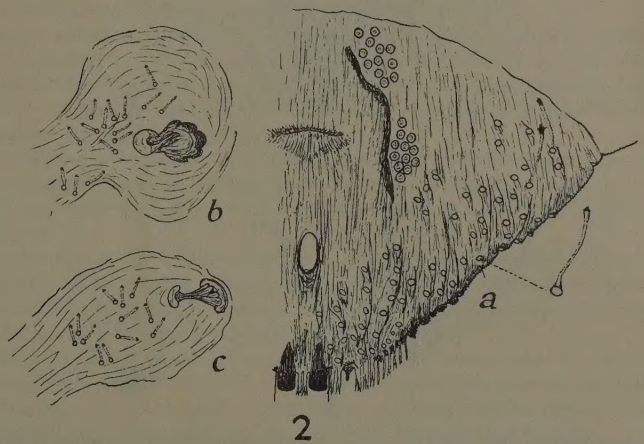
Adult female yellowish, roundish to pyriform. Antennal tubercles each with a long curved hair arising from base. Anterior and posterior spiracles (fig. 2, *b* and *c*) each with a scattered group of minute tubular pores. *Abdominal segments* not well defined and with numerous minute tubular pores scattered on their marginal areas. *Pygidium* (fig. 2, *a*) sharply pointed, with 4 groups of perivulvar pores; upper laterals with from 8 to 13, lower laterals with from 6 to 12 pores. Two pairs of *trullae*: median trullae most conspicuous, prominent, well-sclerotised, with their bases extending into pygidium, inner and outer margins more or less parallel, free edge slightly sloping outwards and faintly rounded, separated from each other by a space equal to about two-thirds their breadth; second pair very poorly developed, inconspicuous, represented as a hyaline tongue-like projection, separated from median trullae by a space nearly equal to breadth of latter. *Squames* longer than median trullae, their arrangement very distinctive: two between median

trullae with their extremities deeply fimbriate; two larger ones with deeply fimbriate extremities between median and second pairs of trullae, three similar squames are situated lateral to second trullae, these are succeeded by six to eight linear or faintly fimbriate narrow squames. These narrow squames are succeeded by a series of marginal serratulate incrassations which become gradually reduced as they approach base of pygidium. Margin of base of pygidium cristate. Numerous oval dorsal *pores* in more or less definite series, with conspicuous tubular ducts. One stout *spine*, longer than median trullae, situated near outer basal margin of latter. Other spines short and inconspicuous. *Derm* tending to exhibit a wrinkled pattern resembling that of a finger print particularly in cephalothoracic region.

On rhizomes of ginger (*Zingiber officinale*). MAURITIUS: Rose Hill, 19.iii.1937 (*Ray. Mamet*). On same plant, Vallée des Prêtres, 1937 (*Department of Agriculture*) and Reduit 6.ix.1938 (*Ray. Mamet*).

Remarks.—Parasitised to some extent by an unidentified Hymenopteron. As many as five parasites, still in the pupal stage, were found under one female puparium, the parasite being an ectoparasite.

This species is remarkable for the arrangement of the squames and is quite distinct from any recorded or described from Mauritius previously.



2

FIG. 2.—*Aspidiotus subterraneus* sp. n. *a*, pygidium of adult female × 395; *b*, anterior spiracles × 395; *c*, posterior spiracles × 395.

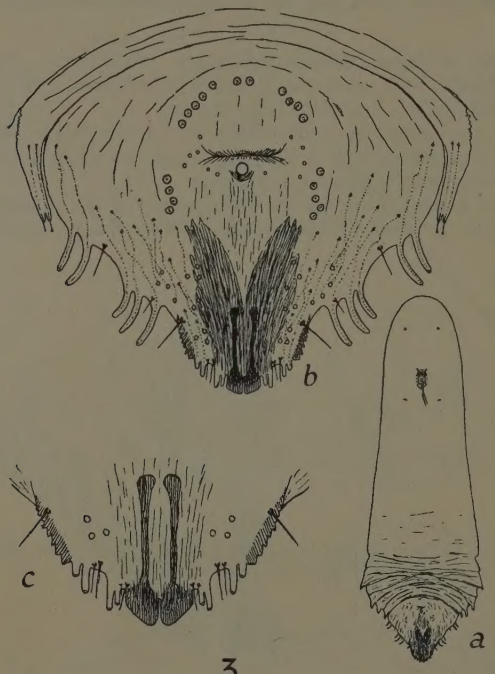
Lepidosaphes mimusopis sp. n.

Female puparium long, narrow, usually straight, widening gradually towards posterior extremity, with a well-defined narrow flattened border. Colour reddish-brown to pale castaneous, with paler margin. Larval exuvium yellow to orange-yellow; nymphal exuvium elongate and darker. Both exuviae occupying about one-third of total length of puparium. Sometimes whole puparium is covered with a thin, translucent, white, glassy secretion. Length 2·2–2·6 mm., breadth 0·4–0·6 mm.

Male puparium much smaller and more delicate than female puparium. Whitish in colour. Larval exuvium yellow to orange-yellow occupying about half total of puparium. Length 0·6–0·8 mm.; breadth 0·2–0·3 mm.

Adult female (fig. 3, *a*) yellowish, long and narrow, broadest across first abdominal segments. Length 1·0–1·2 mm.; breadth 0·3–0·4 mm. *Frons* with very few short but stout setae and minute pores with short tubular ducts. Antennal tubercles each with 3 stout hairs. Mouth-parts relatively small. *Anterior spiracles* with 2 parastigmatic pores. Posterior spiracles with from 1 to 2 pores. *Abdominal segments* well defined and sometimes (during gestation) retracted into one another; well produced into developed squames with tubular ducts.

Pygidium (fig. 3, *b* and *c*) acutely pointed, sclerotised at its apex, with five groups of



3

Fig. 3.—*Lepidosaphes mimusopis* sp. n. *a*, adult female × 55; *b*, pygidium of adult female × 395; *c*, apical margin of pygidium of adult female × 420.

perivulvar pores: median group with from 2 to 3 pores arranged in a row; upper laterals with from 3 to 5 and lower laterals with from 3 to 5 pores. One pair of sclerotised, contiguous and well-developed *trullae*; free edge sloping outwards. *Squames* with long and narrow tubular ducts. The squames which are situated at the apex of pygidium are much shorter than those on lateral margin and in pairs; just after second pair of squames the margin becomes conspicuously serrated and sclerotised, and slopes steeply; pygidium then widens gradually towards its base. *Pores* few, small, roundish, in more or less definite series, with conspicuous tubular ducts. *Spines* stout. One pair of elongate and more or less knobbed *paraphyses*. Anal orifice small, roundish.

Adult male not observed.

On upper surface of leaves of *Mimusops erythroxylon*. Mauritius: Les Mares (2200 ft.) 7.xii.1935 (*Ray. Mamet*).

Remarks.—This species, though not a typical *Lepidosaphes*, is temporarily placed in that genus pending the discovery of other allied species.

Mauritiaspis gen. n.

Gall-making insects belonging to the DIASPINAE.

Nymphal exuvium and *puparium* of adult female incorporated with tissues of food-plant.

Pygidium of adult female sclerotised, with five groups of perivulvar pores and three pairs of trullae. Squames few, short and simple. Spines short. Oval dorsal pores absent. Small tubular pores present throughout body, particularly in abdominal region.

Male puparium not carinated.

Related to *Parachionaspis* MacGillivray, from which it differs by the nature of the male puparium and by the characters of the pygidium of the adult female.

Genotype : *Mauritiaspis malloti* sp. n.

Mauritiaspis malloti sp. n.

Larval exuvium of female golden yellow and somewhat shiny, intermingled with hairs of upper surface of leaves of food-plant. *Nymphal exuvium* and *female puparium* incorporated with tissues of gall which then develop a brownish to dark wine-red coloration. The nymphal exuvium and female puparium are situated inside gall.

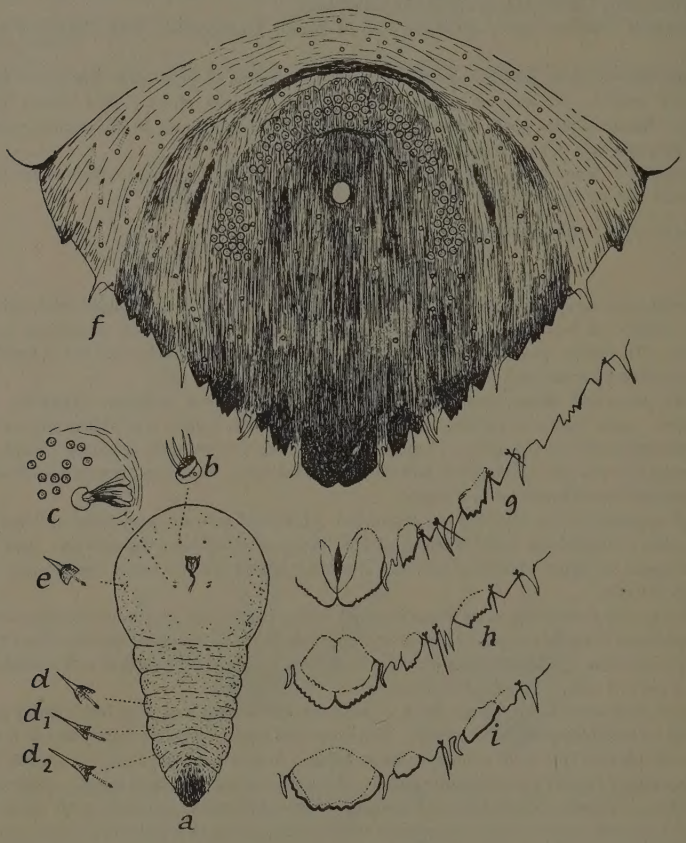
Male puparium minute, somewhat elongate, broadest across posterior extremity, not carinated; pale brown in colour. Larval exuvium golden yellow and shiny, situated at anterior extremity of puparium. Length of puparium 0·7–0·9 mm., greatest breadth of puparium 0·4–0·5 mm. Length of larval exuvium 0·4 mm. The male puparium is situated on under surface of leaves of food-plant.

Gall represented by a globose or truncated cylindrical protuberance with an irregular lobed rim; situated on under surface of the leaves of *Mallotus integrifolius*. Aperture of gall opens on upper surface of leaves. Diameter of gall 2·0–3·0 mm. Height approximately 2·0 mm.

Living adult female (fig. 4, *a*) found in small cavity inside gall, elongate, broadest across cephalothorax broadly rounded in front and tapering behind, easily extractable from fresh gall by dissection. White to faint wine-red in colour. Margin of pygidium well sclerotised. Length 1·4–1·8 mm. Breadth 0·5–0·8 mm.

Frons of *mounted adult female* (fig. 4, *a*) with few short setae and very few tubular pores situated at widely separated intervals. Interantennal space with four spines not in a row. *Antennal tubercles* (fig. 4, *b*) with four stout hairs. Anterior *spiracles* (fig. 4, *c*) each with a loose group of 12 to 17 parastigmatic pores. Posterior spiracles without pores. *Abdominal segmentation* discernible especially at margin. Free abdominal segments with numerous minute roundish to oval pores with short tubular ducts and with relatively compact groups of gland spines (fig. 4, *d*, d_1, d_2); former are distributed throughout segments, whilst latter are located on each of marginal areas. Similar pores and gland spines (fig. 4, *e*) occur on thoracic segments but are less numerous. *Pygidium* (fig. 4, *f*) well sclerotised and rather pointed, with three pairs of trullae. Median trullae largest and closely set together but not fused. These trullae are variable in shape (fig. 4, *h*, *i*), usually as follows (fig. 4, *g*) :— inner margin approximately half length of and more or less parallel to outer margin. Free edge conspicuously serrate and sloping outwards. In some cases, these trullae are broadly rounded and very finely serrate on their sloping free edge. (In one individual (fig. 4, *i*) the median trullae were fused together and broadly rounded with well-developed serrations; the other trullae were broadly rounded and did not show any marked serrations. Even the sclerotised incrassations of the margin of the pygidium had smooth edges.) Second pair of trullae smallest, obscurely duplex : inner lobule largest, markedly trifid; outer

lobule not well sclerotised and acutely conical. Third pair of trullae smaller than median trullae but larger than second pair, obscurely duplex: inner lobule largest with sloping serrate apex; outer lobule broadly conical and not well sclerotised. The trullae are succeeded by a few sclerotised serrate marginal prominences scarcely distinguishable from



4

FIG. 4.—*Mauritiaspis malloti* gen. et sp. n. *a*, adult female × 30; *b*, antennal tubercle × 395; *c*, anterior spiracle × 395; d_1, d_2, *d*, gland spines of abdominal segments × 420; *e*, gland spine of thoracic segment × 420; *f*, pygidium of adult female × 245; *g*, typical pygidial margin × 395; *h*, *i*, abnormal pygidial margins × 395.

actual trullae. *Perivulvar pores* in five groups; three upper groups usually confluent, with from 31 to 42 pores, lower laterals with from 10 to 19 pores. Few minute *dorsal pores* with tubular ducts scattered over pygidium. No large *oval* dorsal pores. Squames few, short and simple. *Spines* nearly as long as squames. *Anal orifice* situated nearer to base than to apex of pygidium. Genital aperture situated nearer to anal orifice than to base.

Adult male not observed.

Forming galls on leaves of an endemic plant locally known as " Bois pigeon " (*Mallotus integrifolius*). MAURITIUS: Les Mares (2200 feet) 7.v.1938 (*Ray. Mamet*). On same plant, Macabé (1900 feet) iv.1938 (*J. Vinson*). On same plant, 1919 (*C. A. O'Connor*) (ex coll. D. d'Emmerez de Charmoy, in my possession).

Remarks.—This interesting gall-forming insect was first collected in 1919 on *Mallotus* and identified by de Charmoy as " *Maskellia* sp. n." No description of it has been published by that author. I am convinced that the genus *Maskellia* Fuller is quite different from *Mauritiaspis* and I cannot understand how de Charmoy arrived at the conclusion that this species belonged to Fuller's genus.

Mauritiaspis mimusopis sp. n.

Larval exuvium of female pale golden yellow and shiny, situated in a small depression in portion of gall which projects on under surface of the leaves of food-plant. Length 0·5 mm.;

5

FIG. 5.—*Mauritiaspis mimusopis* sp. n. *a*, antennal tubercle × 395; *b*, anterior spiracle × 245; *c*, pygidium of adult female × 175; *d*, pygidial margin × 420.

breadth 0·2 mm. *Nymphal exuvium* and *female puparium* incorporated with tissues of gall, which then develop a brownish coloration.

Male puparium not found.

Gall represented by a globular protuberance with a small depression at its middle (in which larval exuvium lies) on under surface of leaves of *Mimusops petiolaris* and as a hollow ellipsoid projection on upper surface of leaves. Sometimes lips of this hollow cavity are firmly pressed together. Total length of gall 3·5–5·0 mm. Diameter 1·5–3·0 mm.

Living adult female deep wine-red in colour; found in a tunnel inside gall. This tunnel is sometimes filled with white secretion.

Mounted adult female elongate, broadly rounded in front and tapering behind, broadest across cephalothorax. Length 1·0–1·5 mm.; breadth 0·5–0·8 mm. Frons and cephalo-

thorax with a few short setae and minute tubular pores. *Antennal tubercles* (fig. 5, *a*) well developed, with five stout hairs. Anterior *spiracles* (fig. 5, *b*) each with a compact group of 3 to 12 parastigmatic pores. Posterior spiracles without pores. *Abdominal segmentation* more or less discernible at margin. Free abdominal segments with minute roundish to oval pores with short tubular ducts on their marginal areas. Similar pores are also found on marginal areas of meso- and metathoracic segments but in smaller number. *Pygidium* (fig. 5, *c*) well sclerotised and broadly obtuse, with three pairs of trullae. Median trullae (fig. 5, *d*) most conspicuous and largest, well sclerotised, more or less closely set together with their free edge markedly serrate and their bases extending into pygidium. Second pair of trullae smaller, well sclerotised, separated from median trullae by a space equal to two-thirds their own breadth; markedly bicuspid: both lobules conical, inner lobule larger. Third pair of trullae nearly obsolete, represented by a small conical sclerotised prominence. *Perivulvar pores* in five groups: median group with from 10 to 19, upper laterals with from 11 to 21 and lower laterals with from 11 to 23 pores. The perivulvar pores are, in some cases, arranged loosely, especially in three upper groups, which then appear to be more or less confluent. *Squames* very few, very short and simple. *Spines* as long as squames. Many small roundish tubular pores scattered on pygidium, particularly on mesal area. No *oval dorsal pores*. One pair of divergent *paraphyses* situated near exterior basal margin of median trullae. *Anal orifice* situated nearer to base than to apex of pygidium.

Forming galls on leaves of *Mimusops petiolaris*, an endemic tree locally known as "Makak." MAURITIUS: Les Mares (2200 ft.) 7.v.1938 (*Ray. Mamet*).

Pseudoleucaspis gen. n.

Female puparium elongate, narrow, glassy white, translucent, mostly occupied by the nymphal exuvium. Larval exuvium situated at anterior extremity of puparium and projecting beyond it.

Male puparium dilated behind, different in form and broader than that of female.

Adult female completely enclosed in nymphal exuvium. Spiracles with very few parastigmatic pores. Pygidium with two pairs of trullae. Perivulvar pores absent. Squames absent. Very few minute roundish tubular pores present on pygidial area. Anal orifice situated a little nearer to base than to apex of pygidium.

Nymphal exuvium enclosing adult female. Pygidial margin with two pairs of trullae. Squames very few but stout and simple. Pores absent.

Related to *Leucaspis* by the nature of the female puparium and in that the female is enclosed in the nymphal exuvium, but differs from that genus by the nature of the male puparium, the absence of perivulvar pores and fimbriate squames in the adult female, etc.

The pygidium of the nymphal exuvium and that of the adult female are very different from those of any member of the DIASPINAE.

Genotype: *Pseudoleucaspis monticola* sp. n.

Pseudoleucaspis monticola sp. n.

Female puparium elongate, narrow, transparent, showing black nymphal exuvium underneath it, white in colour, glassy in texture, contorted in outline, convex where nymphal exuvium is situated, the rest being flattish. Larval exuvium whitish to pale stramineous, situated at anterior extremity of puparium and projecting beyond margin.

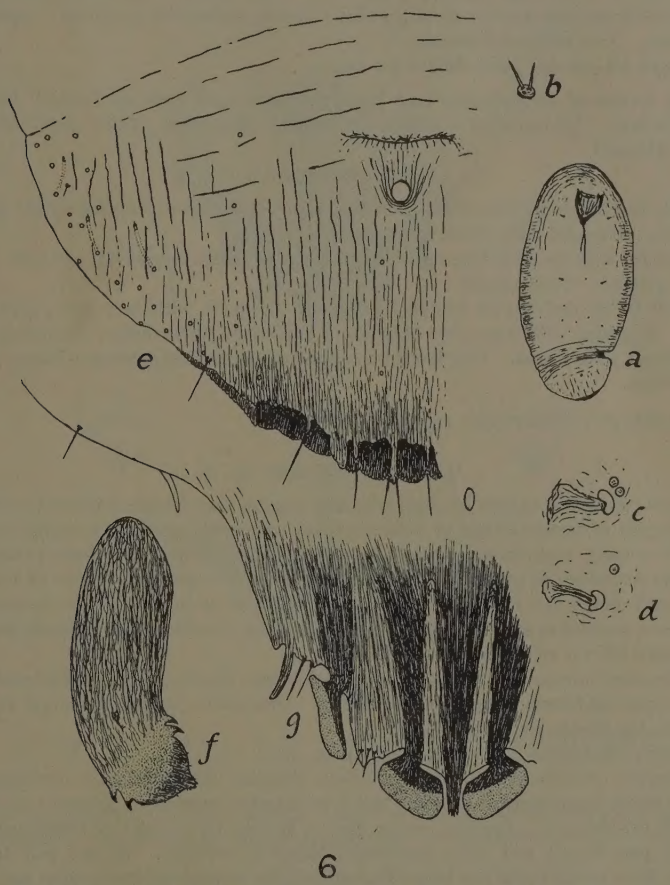
Length 2·0–3·1 mm., breadth 0·5–0·6 mm.

Male puparium shiny, whitish to dull orange with two longitudinal darker bands on each side; median area slightly convex, submarginal area flattish; dilated behind. In dull

orange individuals the flat submarginal area is pale stramineous. Larval exuvium whitish to pale stramineous, situated at anterior extremity of puparium.

Length 1·7–2·3 mm., breadth 0·6–0·9 mm.

Nymphal exuvium (fig. 6, *f*) elongate, opaque black in colour, sharply incised at junction of abdominal segments. Average length 1·2 mm. Average breadth 0·4 mm. Resists action of 10% potash and can only be cleared by using strong bleaching agents such as



6

FIG. 6.—*Pseudoleucaspis monticola* gen. et sp. n. *a*, adult female × 40; *b*, antennal tubercle × 630; *c*, anterior spiracle × 420; *d*, posterior spiracle × 420; *e*, pygidium of adult female × 420; *f*, nymph × 40; *g*, pygidium of nymph × 735.

oxygen and chlorine. *Pygidium* (fig. 6, *g*) pointed. Pygidial margin with two pairs of trullae with finely serrate edges. Median pair largest, resting on a narrow base. Second pair narrow, sloping from outer side to apex and also resting on a narrow base. Squames very few, stout and simple. Spines short. Pores absent. Anal aperture minute, ovoid, situated a little below midway between apex and base of pygidium.

Adult female (fig. 6, *a*) oval to elongate, broadest across metathorax, rounded in front,

completely enclosed in nymphal exuvium. Body somewhat membranous. Mouth-parts relatively large. *Antennal tubercles* (fig. 6, *b*) each with two stout hairs. A few short setae distributed in cephalic region, particularly on frons. Anterior spiracles (fig. 6, *c*) each with two parastigmatic pores. Posterior spiracles (fig. 6, *d*) each with one parastigmatic pore. Abdominal segments not defined marginally. *Pygidium* (fig. 6, *e*) broadly rounded, with two pairs of recessed trullae having serrate edges. Median pair smallest; second pair about twice breadth of median trullae. *Squames* absent. *Perivulvar pores* absent. A few small roundish tubular *pores* present on lateral surfaces of pygidium. *Spines* long and stout. Anal orifice subcentral.

Length 0·4–0·9 mm., breadth 0·3–0·4 mm.

On leaves of an endemic tree locally known as " Bois de Nefle " (*Eugenia mespiloides*). MAURITIUS: Corps de Garde Mountain (2350 feet) 30.i.1938 (*Ray. Mamet*).

Galeraspis gen. n.

Male and female puparia similar, with a semi-circular operculum near their posterior extremity, concealed under tissues of leaves of food-plant.

Nymphal exuvium with three pairs of trullae. Squames very short, pectinate. Paraphyses present. Pores absent.

Adult female enclosed in nymphal exuvium. Spiracles with very few parastigmatic pores. Pygidium with three pairs of trullae. Perivulvar pores absent. Squames absent. Oval dorsal pores absent. Very few tubular small roundish pores present on lateral surfaces of pygidium.

Genotype :—*Galeraspis eugeniae sp. n.*

Galeraspis eugeniae sp. n.

Female puparium narrow in front, widening behind, dark brown, concealed underneath upper layers of tissues of leaf of food-plant and completely covering nymphal exuvium. There is a small semi-circular operculum with a whitish to pale stramineous border near posterior extremity of puparium. The *larval exuvium* is exposed on surface of leaf and is very small (length 0·5 mm.; bread 0·2 mm.), yellowish to brownish, tricarinated in dry specimens, situated at anterior extremity and projecting beyond margin of female puparium.

Length 1·5–2·0 mm.; breadth 0·3–0·5 mm.

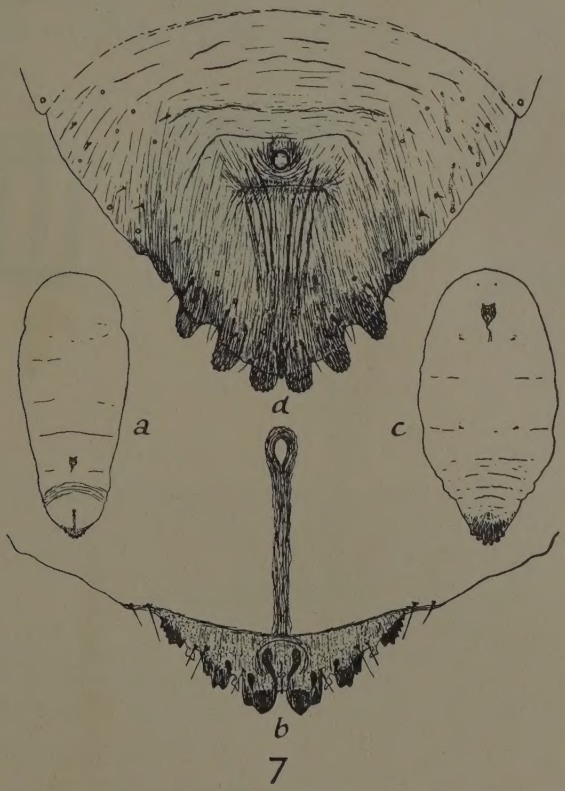
Male puparium similar to that of female but a little broader, also concealed underneath upper layers of tissues of leaf but less deeply. Operculum present but larger than that found in the female puparium.

Length 1·3–1·9 mm.; breadth 0·6–0·9 mm.

Nymphal exuvium (fig. 7, *a*) pale brown, elongate, semitranslucent, enclosing adult female which is apparent as a darker blotch at anterior extremity. Length 1·0–1·2 mm.; breadth 0·7–0·8 mm. *Pygidial margin* (fig. 7, *b*) with three pairs of sclerotised *trullae*. Median pair largest and most prominent, obscurely tricuspid. Second pair tricuspid, smaller than median pair but larger than third pair, separated from median trullae by a space equal to approximately one-third breadth of latter. Third pair smallest, acutely serrate on its outer sloping edge, separated from second pair by a space equal to approximately half breadth of latter. *Squames* few, short, pectinate. Anal aperture small, narrowly ovate. Marginal spines few and relatively long. A pair of elongate clavate *paraphyses* and two pairs of minute paraphyses present. Pores absent.

Adult female (fig. 7, *c*) enclosed in nymphal exuvium, elongate. Length 0·8–1·1 mm.; breadth 0·5–0·6 mm. *Antennal tubercles* each with two hairs. A few very short setae situated at separate intervals in cephalic region. Anterior *spiracles* each with three parastigmatic pores. Posterior spiracles each with one pore. Marginal areas of abdominal

segments with very few minute tubular pores and very short setae. *Pygidium* (fig. 7, *d*) with three pairs of rounded sclerotised *trullae* having crenate margins. All trullae are of approximately the same size and form. Margin of pygidium beyond trullae finely cristate.



7

FIG. 7.—*Galeraspis eugeniae* gen. et sp. n. *a*, nymph × 40; *b*, pygidial margin of nymph × 420; *c*, adult female × 40; *d*, pygidial of adult female × 245.

Perivulvar pores absent. *Squames* absent. Dorsal and ventral surfaces of pygidium with a few short *setae*. Small roundish tubular *pores* sparse. *Anal aperture* subcentral, roundish.

On under surface of leaves of *Eugenia glomerata*. MAURITIUS : Les Mares (2200 feet) 15.i.1938 (*Ray. Mamet*).